selecting an input format of data, used by the parsing step, from a plurality of input

formats stored in a data base which defines a plurality of input formats of data.

77. (Amended) A program product according to claim [55] 76, wherein the

instructions further cause the second device to perform the step of:

selecting an input format for one of a facsimile machine and a copier machine from

the data base which contains input formats of data for both facsimile machines and copier

machines.

REMARKS

Favorable consideration of this application as presently amended and in light of the

following discussion is respectfully requested.

Claims 37-48 and 70-77 are pending in the present application, previously added

Claims 49-56 having been renumbered. Claims 37, 42-43 and 48 were rejected under 35

U.S.C. § 103 (a) as obvious over Allen et al. (U.S. Patent No. 5,394,458) in view of

Hemmady et al. (U.S. Patent No. 4,872,157). Claims 38-41, 44-47, 70-71 and 74-77 were

rejected under 35 U.S.C. § 103 (a) as obvious over Allen et al. in view of Hemmady et al. and

Baum et al. (U.S. Patent No. 5,577,105). Claims 37, 42-43, 48 and 70-71 were rejected under

35 U.S.C. § 103 (a) as obvious over Ulinski (U.S. Patent No. 5,325,156) in view of

Hemmady et al. Claims 38-41, 44-47 and 70-73 were rejected under 35 U.S.C. § 103 (a) as

obvious over Ulinski in view of Hemmady et al. and Baum et al.

Before discussing in detail the rejections of the claims, it is believed that a brief

recapitulation of some of the significant aspects of the present invention is in order. The

present invention is directed to a method, system and program product which allows a remote

monitoring and diagnostic computer or system to communicate using different

communication protocols which are stored within a data base. After a communication is

received through a communication channel, it is analyzed to determine if there is a protocol

identifier.[1] If the protocol identifier exists, a data base is searched to determine the format of

the header of the communication. Once the format of the header is determined, the header of

the received communication is read to determine the information contained therein. This

information is utilized to determine the actual format of the data which follows. The machine

to which the remote monitoring and diagnostic system is connected is a business office

device such as a copier, printer, or facsimile machine, a digital camera, or another type of

device.

Attention is first directed to the rejection of Claim 37 as obvious over Allen et al. in

view of Hemmady et al. Allen et al. is directed to a reproduction apparatus including a

communication interface having an RS-232 interface and a modem, thereby permitting both

on-site and remote communication with a diagnostic and administrative device. The RS-232

interface and modem enable the use of standard hardware and non-dedicated telephone lines

for the purpose of recording apparatus usage, feature utilization, and performing diagnostic

routines on the reproduction apparatus.[2] Signal transfer to the modem 4 occurs using the

standard RS-232 protocol, including both an asynchronous data signal and data transmit and

received signals so that the presence of the modem is transparent to the reproduction

apparatus. *Thus, reproduction apparatus 1 and device 5 communicate as if they were directly*

connected together on an RS-232 line. Preferably, modem 4 is Hayes compatible and capable

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[1]See, e.g., Fig. 6, element 262 and Fig. 7.

[2] See Abstract.

of transmitting and receiving data at a rate of at least 1200 baud. Modem 4 may be mounted

on the communications interface 6 circuit board within the reproduction apparatus or

mounted externally thereof. Because modem 4 converts the RS-232 format signals utilized

by the communications control and memory 7 of the communications interface 6 into analog

signals suitable for transmission over an ordinary telephone line, and conversely converts

analog signals received from the telephone line into standard RS-232 format signals, it is

possible to connect diagnostic and administrative device 5 to reproduction apparatus machine

control and diagnostic circuitry 2 either on-site or via a non-dedicated telephone system.

Thus, device 5 may take the form of a laptop or portable computer with an internal modem or

storage medium such as a magnetic disk drive.[3]

According to the Official Action, "The information is transmitted from the

reproduction apparatus 1 to the administrative device 5 via a telephone network and a modem

4, which uses a standard RS-232 protocol (determined protocol), (col. 3, line 30 - col. 4, line

7)."[4] Amended Claim 37 now recites "transmitting, *through a communication channel*, first

information from the first device to the second device," and "determining, by the second

device, second information utilized by the first device, wherein the second information is a

first portion of the first information" and "parsing, by the second device, a second portion of

the first information transmitted by the first device using the second information which has

been determined, wherein the second portion is different from the first portion." It is

respectfully submitted that Allen et al. does not disclose or suggest the second device

determining the recited *second information* utilized by the first device, and the second

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[3] See col. 3, line 51 - col. 4, line 7.

[4] See Official Action, Page 3, lines 4-6.

device parsing the transmitted information using the *second information* which has been determined, but instead only discloses using a *predetermined* hardware level standard transmission protocol such as RS-232 for transmission of information. Thus, it is believed that amended independent Claim 37 is not anticipated or suggested by <u>Allen et al</u>.

<u>Hemmady et al.</u> is directed to an architecture and organization of a high performance metropolitan area telecommunications packet network. Data traffic from users is connected to data concentrators at the edge of the network, and is transmitted over fiber optic data links to a hub where the data is switched. The hub includes a plurality of data switching modules, each having a control means, and each connected to a distributed control space division switch. Advantageously, the data switching modules, whose inputs are connected to the concentrators, perform all checking and routing functions, while the 1024.times.1024 maximum size space division switch, whose outputs are connected to the concentrators, provides a large fan-out distribution network for reaching many concentrators from each data switching module. Distributed control of the space division switch permits several million connection and disconnection actions to be performed each second, while the pipelined and parallel operation within the control means permits each of the 256 switching modules to process at least 50,000 transactions per second. The data switching modules chain groups of incoming packets destined for a common outlet of the space division switch so that only one connection in that switch is required for transmitting each group of chained packets from a data switching module to a concentrator. MAN provides security features including a port identification supplied by

the data concentrators, and a check that each packet is from an authorized source user, transmitting on a port associated with that user, to an authorized destination user that is in the same group (virtual network) as the source user.[5]

According to the Official Action, Fig. 20 of Hemmady et al. "shows a message format wherein the header 610 consists of the destination address 612, the source address 614, the group identifier 616, group name 618, the type of service 620, a type of service indicator 623, a protocol identifier 624. The header 610 is followed by a *header 630 to process message fragmentation* [emphasis added]. This header 630 includes the protocol identifier 638 for identifying the contents of the internal protocol which is the header of user data 640. Finally, user data 640 may be preceded for appropriate user protocols by the identity of the destination port 642 and source port 644 (col. 62, lines 15-49)."[6]

It is respectfully pointed out that, according to Hemmady et al., "The user protocol 624 assists the EUS driver in multiplexing various streams of data from the network."[7] It is respectfully pointed out that there is *no explanation* in Hemmady et al. as to how the protocol identifier 638 is used for "identifying the contents of the internal protocol which is the header of user data 640." Therefore, there is no teaching of the step of "parsing, by the second device, a second portion of the first information transmitted by the first device using the second information which has been determined" as recited by amended independent Claim 37 of the present invention.

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[5]See Abstract.

[6]See Official Action, Page 3, lines 12-18.

[7]See col. 63, lines 20-22.

According to Hemmady et al., the End User System can be, e.g., a large mainframe, a file server for a workstation, or a local area network such as ETHERNET.[8] Therefore, the EUS to EUS information exchange of Hemmady et al. has nothing to do with end-to-end exchange of data.[9] As discussed in col. 60 of Hemmady et al.,[10] if an email message is sent from a first device to a second device, the header of element 640 of Fig. 20, *added at the network level*, is port numbers, related to address mapping, and is not a part of the data message. Thus, this information is *added through the communication channel*, in contrast to amended independent Claim 37, wherein the *first information is transmitted through a communication channel*, and the second information is a first portion of the transmitted first information. Thus, amended independent Claim 37 is allowable over Hemmady et al.

Regarding the combination of Allen et al. in view of Hemmady et al., the Official Action states, "It would have been obvious at the time the invention was made to a person of ordinary skill in the art to include the protocol identifier as taught in Hemmady et al in the transmitted information from the first device to a second device in Allen in order for the second device to determine the protocol identifier utilized by the first device since *both* [emphasis added] Allen and Hemmady teach the transmission and reception of data packets from and to different devices thereby permitting both on-site and remote communication with a diagnostic and administrative device for the purpose of recording

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[8]See, e.g., col. 7, lines 10-26 and Fig. 2.

[9]See, e.g., Fig. 20.

[10]See, e.g., col. 60, line 11- col. 61, line 13.

apparatus usage, feature utilization, and performing diagnostic routines on reproduction apparatus."[11] It is respectfully pointed out that Allen et al. does not specifically teach the transmission and reception of data packets from and to different devices, and that Hemmady et al. does not teach the transmission and reception of data packets from and to different devices to permit both on-site and remote communication with a diagnostic and administrative device for the purpose of recording apparatus usage, feature utilization, and performing diagnostic routines on reproduction apparatus. Also, as discussed above, the information of Hemmady et al. is added at the network level, through the communication channel. Therefore, there is no clear motivation to combine these references stated by the Official Action, and it is respectfully submitted that the combination of these references does not disclose or suggest the features recited by amended independent Claim 37.

Substantially the same arguments as set forth above apply to amended dependent Claim 42, which depends from Claim 37. It is respectfully submitted that dependent Claim 42 specifies additional features of the present invention which are not disclosed by Allen et al. in view of Hemmady et al.

Similarly, amended independent Claim 43 and amended dependent Claim 48 are believed to be allowable over Allen et al. in view of Hemmady et al. for the same reasons as discussed above with regard to Claims 37 and 42.

Attention is now directed to the rejection of Claims 38-41, 44-47, 70-71 and 74-77 as obvious over Allen et al. in view of Hemmady et al. and Baum et al. Regarding Claims

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[11]See Official Action, Page 4, lines 1-8.

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38-41, 44-47, 70-71 and 74-77, the Official Action relies on Allen et al. as disclosing the claimed subject matter as discussed above, except for including a plurality of protocols.[12] However, as discussed previously with regard to independent Claims 37 and 43, the claimed "determining, by the second device, second information utilized by the first device, wherein the second information is a first portion of the first information," and "parsing, by the second device, a second portion of the first information transmitted by the first device using the second information which has been determined, wherein the second portion is different from the first portion" is not disclosed or suggested by Allen et al. It is respectfully submitted that the combination of Allen et al. in view of Hemmady et al. and Baum et al. also does not disclose or suggest these features as claimed. Thus, it is believed that dependent Claims 38-41, 44-47, 70-71 and 74-77 are allowable over Allen et al. in view of Hemmady et al. and Baum et al.

Attention is now directed to the rejection of Claims 37, 42-43, 48 and 70-71 as obvious over Ulinski in view of Hemmady et al. According to the Official Action, "Ulinsky does not explicitly disclose the use of a communication protocol,"[13] and "it would have been obvious to one of ordinary skill in the art at the time the invention was made for the system in Ulinsky to communicate with the remote diagnostic site by using *predetermined protocol* because the modem in Ulinsky would have included a communication protocol for transmitting and receiving information between the reproduction apparatus and the remote diagnostic site 7."[14] However, amended independent Claims 37 and 43 do not recite a

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[12]See Official Action, Page 4, lines 16-18.

[13]See Official Action, Page 6, line 15.

[14]See Official Action, Page 6, line 20 - Page 7, line 4.

predetermined protocol for transmitting information but instead recite a parsing step which is not disclosed or suggested by Ulinski.

Also, according to the Official Action, "Ulinski does not explicitly disclose the use of a communication protocol. However, the modem 48 transmits information via the public switched telephone network 50 to the remote diagnostic site 60 (second device), which has the compiler 86 for converting all incoming information data into a common machine format. Thus, the modem 48 would have included a communication protocol for communicating between the reproduction apparatus 10 the remote diagnostic site 60."[15] It is respectfully pointed out that a "compiler" typically includes a parser which must know the format of incoming information before beginning the compilation process. However, in the present invention the parser can not begin parsing the incoming data which is included in the transmitted information until the first few fields of the transmitted data are examined to determine the format of the rest of the transmitted data. Thus, a database, for example, is utilized to determine the data format before the parser can fully parse the data content. Thus, it is believed that independent Claims 37 and 43, and their respective dependent Claims 42 and 48, and 70-71 are allowable over Ulinski.

As discussed previously, Claims 37, 42-43, 48 and 70-71 are not disclosed or suggested by Hemmady et al.

For similar reasons as discussed previously with regard to the combination of Allen et al. in view of Hemmady et al., it is believed that Claims 37, 42-43, 48 and 70-71 are not disclosed or suggested by the combination of Ulinski in view of Hemmady et al.

Attention is now directed to the rejection of Claims 38-41, 44-47 and 70-73 as

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[15]See Official Action, Page 6, lines 15-20.

obvious over <u>Ulinski</u> in view of <u>Hemmady et al.</u> and <u>Baum et al</u>. The Official Action relies on <u>Ulinsky</u> as disclosing the claimed subject matter as discussed above, except for including a plurality of protocols.[16] However, as discussed previously with regard to independent Claims 37 and 43, the claims do not recite a "communication protocol" and the recited "determining, by the second device, second information utilized by the first device, wherein the second information is a first portion of the first information, and parsing, by the second device, a second portion of the first information transmitted by the first device using the second information which has been determined, wherein the second portion is different from the first portion" is not disclosed or suggested by <u>Ulinsky</u>. It is respectfully submitted that the combination of <u>Ulinsky</u> in view of <u>Hemmady et al.</u> and <u>Baum et al.</u> also does not disclose or suggest these features as claimed. Thus, it is believed that Claims 38-41 and 44-47 are allowable over <u>Ulinsky</u> in view of <u>Hemmady et al.</u> and <u>Baum et al</u>.

It is believed that no new matter is added by this amendment.[17]

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[16]See Official Action, Page 8, line 13.

[17]See, e.g., specification, page 8, line 16 - page 9, line 11.

In view of the foregoing comments, it is respectfully submitted that the invention

defined by Claims 37-48 and 70-77 is patentable, and a swift and favorable reconsideration of

this application is therefore requested.

Respectfully submitted,

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